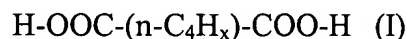


AMENDMENTS TO THE CLAIMS

1. (Original) A process for the preparation of a dicarboxylic acid of the formula (I)



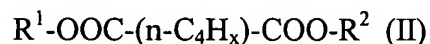
where

x is 6 or 8,

starting from acrylic acid,

which comprises

- a) reacting a dicarboxylic acid diester of the formula (II)



where

x is 6 or 8, and

R^1 and R^2 , independently of one another, are C_1 -, C_2 -, C_3 - or C_4 -alkyl, aryl or

heteroaryl and may be identical to or different from one another,

with acrylic acid to give a dicarboxylic acid of the formula (I) and a mixture of

acrylic acid esters of the formulae $\text{C}_2\text{H}_3\text{-COOR}^1$ and $\text{C}_2\text{H}_3\text{-COOR}^2$, where R^1 and R^2

are as defined above,

- b) separating the dicarboxylic acid of the formula (I) obtained in step a) from the reaction mixture obtained in step a),
- c) dimerizing the $\text{C}_2\text{H}_3\text{-COOR}^1$, $\text{C}_2\text{H}_3\text{-COOR}^2$ or mixture thereof obtained in step a) to give an n-butenedicarboxylic acid diester, and
- d) cleaving the dicarboxylic acid diester obtained in step c) to give the corresponding dicarboxylic acid of the formula (I).

2. (Original) A process as claimed in claim 1, where the cleavage of the n-butenedicarboxylic acid diester in step d) is carried out by recycling the n-butenedicarboxylic acid ester obtained in step c) into step a), converting this n-butenedicarboxylic acid diester into n-butenedicarboxylic acid in step a), and obtaining n-butenedicarboxylic acid as the dicarboxylic acid of the formula (I) in step b).
3. (Original) A process as claimed in claim 1, where the n-butenedicarboxylic acid obtained in step d) is hydrogenated to give adipic acid as the dicarboxylic acid of the formula (I).
4. (Original) A process as claimed in claim 1, where the cleavage of the n-butenedicarboxylic acid diester in step d) is carried out by recycling the n-butenedicarboxylic acid ester obtained in step c) into step a), converting this n-butenedicarboxylic acid diester into n-butenedicarboxylic acid in step a), obtaining n-butenedicarboxylic acid in step b), and hydrogenating this n-butenedicarboxylic acid to give adipic acid as the dicarboxylic acid of the formula (I).
5. (Original) A process as claimed in claim 1, where the n-butenedicarboxylic acid diester obtained in step c) is hydrogenated between steps c) and d) to give an adipic acid diester, and adipic acid is obtained as the dicarboxylic acid of the formula (I) by cleaving the adipic acid diester in step d).

6. (Original) A process as claimed in claim 1, where
the n-butenedicarboxylic acid diester obtained in step c) is hydrogenated between steps c) and d) to give an adipic acid diester,
the cleavage of the adipic acid diester in step d) is carried out by recycling the resultant adipic acid diester into step a) and converting it into adipic acid in step a), and
adipic acid is obtained as the dicarboxylic acid of the formula (I) in step b).
7. (Currently amended) A process as claimed in claim 1, ~~any one of claims 1 to 6~~, where the radicals R^1 and R^2 are, independently of one another, methyl, ethyl, n-propyl, i-propyl, n-butyl, i-butyl, s-butyl or t-butyl.
8. (Currently amended) A process as claimed in claim 1, ~~any one of claims 1 to 7~~, where the radicals R^1 and R^2 are identical.
9. (New) A process as claimed in claim 1, wherein the radicals R^1 and R^2 are methyl.
10. (New) A process as claimed in claim 1, wherein $x = 8$, and the dicarboxylic acid on which the dicarboxylic acid ester of the formula (II) is based is adipic acid.
11. (New) A process as claimed in claim 5, wherein the hydrogenation is carried out with a heterogeneous catalyst.
12. (New) A process as claimed in claim 11, wherein said heterogeneous catalyst comprise a noble metal from group 8 of the Periodic Table of the Elements.
13. (New) A process as claimed in claim 12, wherein said heterogeneous catalyst comprise palladium, ruthenium, rhodium, iridium, platinum, nickel, cobalt or copper.
14. (New) A process as claimed in claim 1, wherein $x = 8$, and the adipic acid is obtained from step b).

15. (New) A process as claimed in claim 1, wherein $x = 6$, and n-butenedicarboxylic acid is obtained from step b).